Attorney Docket No..:020611



AS BELOW NAMED IN	· · · · · · · · · · · · · · · · · · ·	,	type.	
☐ Original		☐ Continuation-In-Part ☐ National Stage of PCT	Divisiona	ıl
name is listed below) or	an original, first and joint inventor (if p	elow next to my name: I believe I am the o slural names are listed below) of the subjec G PREDICTION ERROR METHOD-S	t matter which is claime	d and for which a
was amended on	t 18, 2003 as Serial No. 10/643,639. (if applicable). claimed in PCT International Applicatio	on No. filed on and as amende	ed under PCT Article 19	on .
amendment referred to ab		ats of the above-identified specification, is the information which is material to the exa		
or of any PCT Internation identified below any foreign	onal application(s) designating at least ign application(s) for patent or inventor	tates Code, Sec. 119 of any foreign application one country other than the United States is certificate or any PCT International applications subject matter having a filing date before	s of America listed belo lication(s) designating at	ow and have also least one country
			Priority (
				Claimed
(Country)	(Application No.)	(Day/Month/Year/Filed)	(Yes)	Claimed (No)
• • • • • • • • • • • • • • • • • • • •		(Day/Month/Year/Filed) red States provisional application(s) listed by	pelow:	
I hereby claim the benefit	under Title 35 USC 119(e) of any Unit	ed States provisional application(s) listed b		
• • • • • • • • • • • • • • • • • • • •	under Title 35 USC 119(e) of any Unit		pelow:	
I hereby claim the benefit 60/454, (Serial) I hereby claim the benefit claims of this application acknowledge the duty to	under Title 35 USC 119(e) of any Unit 378 No.) t under Title 35 USC 120 of the Unite is not disclosed in the prior United Sta	March 12, 2003 (Filing Date) d States application(s) listed below, and intes application in the manner provided by the intest application of the manner provided by the intest application in the intertwent in the intest application in the intertwent in the intest application in the intest a	pelow: nsofar as the subject mat the first paragraph of Tit	(No)
I hereby claim the benefit 60/454, (Serial) I hereby claim the benefit claims of this application acknowledge the duty to	under Title 35 USC 119(e) of any Unit 378 No.) t under Title 35 USC 120 of the Unite is not disclosed in the prior United Sta disclose material information as definal or PCT International filing date of th	March 12, 2003 (Filing Date) d States application(s) listed below, and intes application in the manner provided by the intest application of the manner provided by the intest application in the intertwent in the intest application in the intertwent in the intest application in the intest a	pelow: nsofar as the subject mat the first paragraph of Tit	(No) tter of each of the tle 35 USC 112, I date of the prior

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected therewith: Russell B. Miller, Reg. No. 31,122, Gregory D. Ogrod, Reg. No. 30,880, Bruce W. Greenhaus, Reg. No. 37,339, Charles D. Brown, Reg. No. 28,285, Thomas R. Rouse, Reg. No. 40,793, Kent D. Baker, Reg. No. 38,822, Thomas M. Thibault, Reg. No. 42,181, Christopher O. Edwards, Reg. No. 36,127, Pavel Kalousek, Reg. No. 44,178, Kyong H. Macek, Reg. No. 42,977, Byron Yafuso, Reg. No. 45,244, Sean English, Reg. No. 37,319, Roger W. Martin, Reg. No. 39,291, Sandip S. Minhas, Reg. No. 44,945, Michael D. Hartogs, Reg. No. 36,547, Philip R. Wadsworth, Reg. No. 29,219, S. Hossain Beladi, Reg. No. 42,311, Albert J. Harmois, Reg. No. 46,123, Sandra L. Godsey, Reg. No. 42,589, George C. Pappas, Reg. No. 35,065, Abdollah Katbab, Reg. No. 45,325, Robert J. O'Connell, Reg. No. 44,265, William Marcus Hooks, Reg. No. 48,857, Howard Seo, Reg. No. 43,106, Jae-Hee Choi, Reg. No. 45,288, Donald C. Kordich, Reg. No. 38,213, Kevin T. Cheatham, Reg. No. 48,766, Nick J. Pauley, Reg. No. 44,999, Thien T. Nguyen, Reg. No. 43,835, Michael D. Graham, Reg. No. 51,751, George J. Oehling, Reg. No. 40,471, Lee Hsu, Reg. No. 39,716, Dean Tricarico, Reg. No. 53,703 and Rupit Patel, Reg. No. 53,441. Please direct all telephone calls to Philip R. Wadsworth at (858) 651-4404 and address all correspondence to: QUALCOMM Incorporated, Patent Department, 5775 Morehouse Drive, San Diego, California 92121-1714 (PTO Customer No. 23696).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Full Name of Third or Joint Inventor

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4239 Pilon Point, San Diego, CA 92130

ASSIGNMENT



TO WHOM IT MAY CONCERN:

For the sum of One Dollar and other valuable consideration to us in hand paid, receipt of which is hereby acknowledged, be it known that we Farrokh Abrishamkar, a citizen of the United States of America having a place of residence at 5218 Sandhill Terrace, San Diego, CA 92130, Kartik B. Ariyur, a citizen of the United States of America having a place of residence at 9250-F Regents Road, La Jolla, CA 92307, and Kenneth Kreutz-Delgado, a citizen of the United States of America having a place of residence at 4239 Pilon Point, San Diego, CA 92130, have sold, assigned and transferred and by these presents do sell, assign, transfer and set over unto QUALCOMM Incorporated, a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California successors, legal representatives, or assigns, the whole right, title and interest in and to a certain invention relating to: PILOT ESTIMATION USING PREDICTION ERROR METHOD-SWITCHED FILTERS by us devised and the application for United States Patent therefor filed in the United States Patent and Trademark Office on August 18, 2003, and assigned Serial No. 10/643,639, including, without limitation, all provisional patent applications, including Serial No. 60/454,378, filed March 12, 2003, and all original and reissue patents granted thereof, and all divisions, and continuations thereof, including the subject matter of any and all claims which may be obtained in every such patent, and all foreign rights to said invention, and covenant that we have full right to do so, and agree that we will communicate to said corporation or its representatives all facts known to us respecting said invention, whenever requested, and testify in any legal proceedings, sign all lawful papers, make all rightful oaths and generally do everything possible to aid said corporation, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at San Diego, California this	_ day or, 2004.
7	Farrokh Abrishamkar
Done at San Diego, California this	_day of
	Kartik B. Ariyur
Done at San Diego, California this	_ day of, 2004.
	Kenneth Kreutz-Delgado

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at San Diego, California this	day of, 2004.
	Farrokh Abrishamkar
Done at Minnetonka, Minnesota this	3 nd day of February, 2004.
2010 W. Manievolinia, Transco	
	A-B. Karr
	Kartik B. Ariyur
D. C. C. C. C. C. C.	J of 2004
Done at San Diego, California this	day of, 2004.
	Kenneth Kreutz-Delgado

which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at San Diego, California this _____ day of ______, 2004.

Farrokh Abrishamkar

Done at San Diego, California this _____ day of ______, 2004.

Kartik B. Ariyur

Done at San Diego, California this 12 day of February 2004.

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent